1125-VM-2535   **Nicole M Panza*** (`npanza@fmarion.edu`), Francis Marion University, Department of Mathematics, PO Box 100547, Florence, SC 29505-0547. *Modeling Three-Wave Follicle Dynamics in the Menstrual Cycle.* Preliminary report.

A nonlinear differential equation model which represents the hormonal regulation of the menstrual cycle with three follicle waves per cycle is presented. Follicle waves have been reported in women by Baerwald et al. (2003). Typically two or three waves occur per cycle. The model exhibits three waves of antral follicles during a woman's cycle using a Follicle Stimulating Hormone threshold function. The three-wave cycle is simulated by modeling six reproductive hormones. (Received September 20, 2016)